Response

Applicants, through their attorney, respectfully request the Examiner to reconsider and withdraw the outstanding rejections of the claims for the reasons set forth below. The amendments herein include those submitted after final rejection but which did not place the application in condition for allowance.

Support

Applicants have amended claim 1 to specify that the functional fluid of the present invention is selected from the group consisting of lubricating oils, engine oils, transmission fluids, greases, gear oils, hydraulic fluids, farm tractor fluids, transformer fluids, fuels, diesel, gasoline, biofuels, and mixtures thereof. Support for this amendment comes from claim 15 and page 6, lines 3-8 of the specification.

Given this specific list of functional fluids now provided in claim 1, Applicants have amended claims 1 and 2 by removing the term "organic solvent based" from before the term functional fluid.

Applicants have also amended claim 21 to specify that the indicator used in the present invention is selected from a specific group of indicators. Support for this amendment comes from claim 21 itself and also from page 8, line 15 to page 10, line 25 of the specification.

Claim 15 has been cancelled.

No other elements of the claims have been changed.

Remarks

The Examiner rejected claims 1-15 and 21 under 35 U.S.C. 102(b) as being anticipated by Becket (US 5,710,372). Applicants respectfully disagree.

Applicants have amended claim 1 to specify that the functional fluid used in the present invention is selected from the group consisting of lubricating oils, engine oils, transmission fluids, greases, gear oils, hydraulic fluids, farm tractor fluids, transformer fluids, fuels, diesel, gasoline, biofuels, and mixtures thereof. All of these fluid types are known in the art and are known to be organic fluids. None of these fluids could be described as aqueous fluids or as aqueous fluids with one or more organic components. Many of these

fluids may contain small amounts of water picked up as a contaminant, but certainly not the extent that they would fall under the teachings of Becket.

In the November 14th office action, the Examiner states that the previous claim language was open and did not exclude the presence of aqueous components. Applicants now specify the functional fluid is selected from a closed list of specific fluid types. These fluid types are well known in the art and are known not to contain significant aqueous components and cannot be described as aqueous fluid compositions.

Becket teaches a "method for measuring the concentration of a constituent of an aqueous fluid composition (e.g. aqueous machining fluid composition) and for measuring total alkalinity thereof" (see the Abstract of Becket). The reference goes on to specify what it means by aqueous machining fluid composition, as "a complex aqueous liquid applied to the interface between a tool and a workpiece during the shaping of the workpiece by physical means" (see col 1, lines 36-40 of Becket). The rest of the background section makes it clear that the fluids Becket is concerned with are metal working fluids, which are generally water/aqueous based fluids that may contain one or more additives, including organic materials, but which do not inherently change the character of the fluid as being aqueous based. The reference then says that other embodiments of its invention include those where the aqueous fluid "is an aqueous cleaning fluid composition, an aqueous plating bath composition, aqueous cooling fluid composition, aqueous based hydraulic fluid, aqueous processing fluids, aqueous etching fluids, aqueous quenching fluids, aqueous agricultural fluids, and aqueous grinding fluids" (see col 5, lines 12-19 of Becket). No where in the reference is there any teaching of anything other than an aqueous fluid of some type. The reference even states clearly that its invention is limited to aqueous fluid compositions (see col 11, lines 30-35 of Becket).

In addition Becket is limited to measuring the pH of the fluid in question in order to determine the concentration of a component of the fluid. A requirement for making a measurement of pH is that the fluid being tested is aqueous. This further demonstrates the limitations of the teachings of the reference and its focus on aqueous fluids.

In contrast, the present invention specifies that its functional fluid is selected from a list which includes engine oils and fuels. These fluids are well known in the art and are known to be non-aqueous fluids, such that the teachings of Becket do not apply to them. One skilled in the art, looking to arrive at the methods of the present invention, would not start

with or use the teachings of Becket because of its focus on aqueous fluids. Various additives and components, including markers and indicators such as those used in the present invention, are often compatible with either organic fluids or aqueous fluids, but not both. Therefore, one skilled in the art would not look toward the teachings of a reference limited to aqueous fluids, and apply such teachings to organic fluid systems, or vice versa.

While Beckett does disclose a means for determining the presence of compounds in a fluid, including organic compounds, its teachings are limited to aqueous fluids. There is no teaching in Beckett of a method useful for determining the presence of compounds in an organic fluid and no motivation to use the methods of Beckett in organic fluids. Beckett is clearly and completely, by its own language, limited to aqueous fluid systems.

In contrast, the present invention is limited to a specific set of non-aqueous fluids. The present invention specifies the functional fluids to be used in its methods and none of these functional fluid types are disclosed or taught by the reference.

As Becket fails to teach a required feature of the invention, Applicants respectfully submit that the present invention is both novel and non-obvious over the reference and request that all current rejections based on Becket be removed.

With regards to claim 21, the indicators which may be used in the methods of the present invention are specified in the claim.

Becket, at col 10, lines 8-23, lists the following indicators which may be used in its invention: methyl orange, bromophenol blue, 4,4'-bis (2 amino-1-naphthylazo- 2,2'-stilbenzdisulfonic acid, 2-(2,4-dinitrophenylazo)-1-naphthol-3, 6-disulfonic acid disodium salt, phenolphthalein, nitrazine yellow, bromocresol green, phenolsulfonephthalein, thymolsulfonephthalein and resorcin blue. Becket notes that this list is not meant to be limiting but Becket does not provide any other indicators which may be used or motivation toward finding and/or identifying other suitable indicators.

In contrast, the present invention, in claim 21, specifies a closed list of indicators which may be used in the present invention. None of these indicators are taught or disclosed in Becket. As Becket fails to teach a required feature of the invention, Applicants respectfully submit that the present invention (specifically claim 21) is at least novel but also non-obvious over the reference and request that the rejections of claim 21 based on Becket be removed.

Applicants note that the Examiner has not provided any specific basis for the current rejection of claim 21 over Becket, but instead has stated the same basis for the current rejections that were presented in the previous office action, when claim 21 was not rejected under the reference. If the Examiner maintains the rejection of claim 21 Applicants ask for additional detail regarding why claim 21 has been rejected over Becket given the indicators required by claim 21 are not disclosed nor taught by the reference.

Conclusion

For the foregoing reasons it is submitted that the present claims are novel and unobvious over the cited reference, and in condition for allowance. The foregoing remarks are believed to be a full and complete response to the outstanding office action. Therefore an early and favorable reconsideration is respectfully requested. If the Examiner believes that only minor issues remain to be resolved, a telephone call to the Undersigned is suggested.

Any required fees or any deficiency or overpayment in fees should be charged or credited to deposit account 12-2275 (The Lubrizol Corporation).

Respectfully submitted,

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